

PATENT COOPERATION TREATY

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

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Date of mailing 31 August 2004 (31.08.2004)
(day/month/year)

Applicant's or agent's file reference
AZ04-158WOWW

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/KR 2004/001093

International filing date (day/month/year)
12 May 2004 (12.05.2004)

Priority Date (day/month/year)
12 May 2003 (12.05.2003)

International Patent Classification (IPC) or both national classification and IPC
C08L 23/12, A01N 43/80, C08K 5/46, C08K 3/08, C08K 3/22, D06F 21/00

Applicant

LG ELECTRONICS INC.

1. This opinion contains indications relating to the following items:

- ☒ Cont. No. I Basis of the opinion
- ☐ Cont. No. II Priority
- ☐ Cont. No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Cont. No. IV Lack of unity of invention
- ☒ Cont. No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Cont. No. VI Certain documents cited
- ☐ Cont. No. VII Certain defects in the international application
- ☐ Cont. No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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International application No.
PCT/KR 2004/001093

Continuation No. I

Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed.

Continuation No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 2,4	YES
	Claims 1,3&5-8	NO
Inventive step (IS)	Claims 2,4	YES
	Claims 1,3&5-8	NO
Industrial applicability (IA)	Claims 1-8	YES
	Claims ----	NO

2. Citations and explanations:

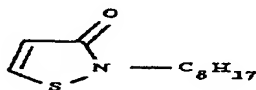
The following documents have been considered for the purposes of this Search Report:

D1: JP 08 092019 A
D2: JP 05 025319 A
D3: WO 96/14882 A1

JP 8092019 A is disclosing an antimicrobial resin composition obtained by compounding 100 pts.wt. of a synthetic resin with 0.01-10 pts.wt. of a thiazoline bactericidal agent and at least one selected from among antimicrobial metallic compounds or metals in an amount of 0.001-10 pts.wt. in terms of the metal content. The synthetic resin is polyethylene, polypropylene,

urethane, acrylic resin, etc. The thiazoline compound is 1,2-benzisothiazolin-3-one, 5-chloro-2-methyl-4-isothiazolin-3-one, etc. The antimicrobial metallic compound and metal are selected from metallic silver, copper and zinc and their compounds. A formed article can be produced e.g. by a forming method such as extrusion-molding or injection-molding from the antimicrobial resin composition.

JP 5025319 A concerns a mildew-proofing agent composition produced by adding 2-n-octyl-4-isothiazolin-3-one of formula



and zinc oxide to a plastic such as PE, PP, PVC or polyurethane resin. The ratio of the compound of formula to the zinc oxide is preferably 1 to 1-20 and the temperature to knead the compound of formula and zinc oxide into the plastic is preferably 160-300 deg.C.

WO 96/14882 A1 relates to an automotive air-conditioning system comprising air-conditioning evaporator, heater, blower and duct characterized in which plastic material of housing, well-closed pad and lining pad of air-conditioning evaporator, door pad of heater housing, blowing-fan and lining pad of blower and duct are molded by mixing the antimicrobial compound selected from isothiazolines and oxybisphenoxarsines, and aluminum material of core of the said air-conditioning evaporator core is antimicrobially treated by coating hydrophilic coloring agent mixed with the antimicrobial composition of parachlorometa xlenol. The housing of said air-conditioning evaporator is manufactured by injected molding in such a manner to mix a propylene resin containing 20% of talc employed as main material, with the antimicrobial substance in 0,5 to 1,5 wt. %.

The subject-matter of claims 1,3&5- 8 is not new (Art. 33(2) PCT) compared with the disclosures of the cited documents (D1 to D3). The subject-matter of said claims likewise fails to exhibit an inventive step (Art. 33(3) PCT) over the prior art.

The claimed application can be industrially applied undoubtedly.